

DRAFT

CONSERVATION MANAGEMENT PRACTICE (CMP) for CAFOs

Categories for CAFOs for the CMP program may include:

1. Dust from animal movement
2. Unpaved Areas: Unpaved roads and Unpaved parking and equipment storage areas
3. Manure and waste handling
4. Other

SOURCE ACTIVITY	CMP CATEGORY		CMP	BRIEF DESCRIPTION	DEVELOPER/AGENCY
Pollutant: PM10					
Dairy cattle	1. Dust from animal movement	a	Animal housing/feeding areas allow frequent manure removal (concrete surface)	e.g.: Use of freestall facilities and concrete feed aprons	Suggested by J. Beyer, NRCS
		b	Establish a fibrous layer in working areas and pens	Adding wood chips to sorting alleys and high traffic areas to hold moisture and keep down dust disturbance, and putting damp manure solids right off of the separator into the heifer pens on a daily basis and working it with a rotary harrow.	Harris Ranch (per P. Martin) Flint Dairy (per P. Martin)
	2. Unpaved roads and unpaved parking/traffic areas	a	Treatment of unpaved roads, and unpaved parking/traffic areas	Requires actions to prevent, reduce or mitigate PM emissions (e.g.: use magnesium chloride, water)	SJVAPCD Regulation VIII
	3. Manure Management	a	Frequent manure removal (every 6 months)	Reduces dust from manure.	Not specific/LPES
		b	Manure Harvesting equipment	Piece of equipment should allow operators to leave an evenly corral surface of compacted manure on top of the soil. Pulling blades will do better than pushing blades	Dr. Brent Auvermann, Texas A&M
	4. Other	a	Wetting during ration mixing	Adding moisture or high moisture feedstuffs to hay and commodities	Per P. Martin
		b	Modifications of feed handling/delivery systems	Using covered feeders, and using pelletized feed.	Draft <i>Emissions from Animal Feeding Operations</i> , August 15, 2001, EPA

DRAFT

SOURCE ACTIVITY	CMP CATEGORY		CMP	BRIEF DESCRIPTION	DEVELOPER/AGENCY
		c	Shelterbelts/boundary trees	Planting rows of vegetation around facility and surrounding to create a barrier for air exiting from the building.	Generic Environmental Impact Statement on Animal Agriculture: A Summary of the Literature Related to Air Quality and Odor, by Larry D. Jacobson et al. <i>Draft Emissions from Animal</i>
Feedlot cattle	1. Dust entrainment by animal	a	Stocking density adjustment	The number of cattle per unit areas may be changed in accordance to the moisture found in the unit area to reduce dust.	Not specific
		b	Removal of loose material on surface and maintain a compacted layer of manure 1 to 2 inches thick	Keeping the manure depth less than 1 inch above the ground, and therefore keeping the corral surface thin and well compacted, reduces PM emissions.	Dr. Brent Auvermann, Texas A&M
		c	Manure Harvesting equipment	Piece of equipment should allow operators to leave an evenly corral surface of compacted manure on top of the soil. Pulling blades will do better than pushing blades	Dr. Brent Auvermann, Texas A&M
		d	Daily water sprinkling, and timing of watering around 6pm or before sunset	Water where and when necessary.	Not specific
		e	Discouragement of end-of-day spike in livestock activity/behavioral management	Delaying the last daily feeding may reduce cattle activity in the late afternoon and early evening.	Dr. Frank Mitloehner
	2. Unpaved roads and unpaved parking/traffic areas	a	Treatment of unpaved roads, and unpaved parking/traffic areas	Requires actions to prevent, reduce or mitigate PM emissions (e.g.: use magnesium chloride, water)	SJVAPCD Regulation VIII
	3. Manure Management	a	Frequent manure removal (every 6 months)	Reduces dust from manure.	Not specific/LPES

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	4. Other	a	Shelterbelts/boundary trees	Planting rows of vegetation around facility and its surrounding to create a barrier for air exiting from the building.	Generic Environmental Impact Statement on Animal Agriculture: A Summary of the Literature Related to Air Quality and Odor, by Larry D. Jacobson et al.
		b	Wetting during ration mixing	Adding moisture or high moisture feedstuffs to hay and commodities	Per P. Martin

Note: Most CMPs listed here are still in experimental stage.